

AMENDMENTS TO CLAIMS

Claim 1 (Currently amended): A stator structure with composite stator windings, comprising:

a stator ring ~~divided into~~ being formed by a plurality of ~~equal~~ units of equal size, each unit having a concave end on one end thereof and a convex end on another end thereof, the concave end having a shape ~~corresponding~~ complementary to that of the convex end ~~such that adjacent equal units can be assembled through the assembling of the concave end and the convex end, wherein an assembled stator ring with respective concave ends engaged with respective convex ends cannot be separated in a lateral direction, each unit of the stator ring having a plurality of angularly spaced embedding grooves concavely formed on in one of an inner side or an outer side thereof, the said embedding grooves having an equal pitch and number corresponding to a stator tooth number;~~

a plurality of stator teeth respectively engaged with said stator ring, each of the stator teeth being formed with an arc-shaped tooth surface, each of the stator teeth having a tooth flank extending from the distal end to ~~with~~ a tooth tail at an opposing end of the tooth, the tooth tail having a complementary contour ~~shape corresponding to that a contour of a respective the embedding groove such that the tooth tail can be~~ is firmly embedded into the embedding groove; and,

a plurality of ~~T-shaped~~ insulating stages ~~made of insulating material~~ and mounted on the stator teeth, each insulating stage having vertical a hollow post on which a winding is mounted, ; the ~~vertical~~ post being disposed on a respective tooth flank of a corresponding tooth having a hollow portion corresponding to the tooth flank of the tooth and the tooth flank of the tooth passing through and mounted on or detached from the hollow portion;

a plurality of windings insulating plates adapted to be coupled to proximal ends of respective posts of said insulating stages subsequent to the mounting of said windings on said posts, wherein each winding is made of a lacquered copper wires composed of wire conductive coil individually and separately wound wrapped by a winding tool or a winding formation tool and then subsequently mounted on said insulating stage for increasing an occupying ratio of the composite stator windings, the winding having a hollow center and the vertical posts post of a respective insulating stage being embedded into the hollow center.

Claim 2 - 6 (Cancelled).

Claim 7. (Currently amended): The stator structure as in claim 1, wherein each of the stator teeth has have a pair of closing rings respectively disposed on a topside and bottom side thereof and having connecting ends for coupling to adjacent closing rings,

the closing rings ~~can be~~ being integrally connected ~~integrally~~ by ~~the~~ respective connecting ends, whereby a said plurality of winding grooves, windings and insulating plates can be assembled on the stator teeth are secured together in a closed contour for respectively receiving said plurality of insulating stages on said stator teeth combined with said closing rings and then receiving said windings on said insulating stages as a subassembly, said subassembly being subsequently joined to said stator ring by respective coupling of said tooth tails with said embedding grooves.

Claims 8 - 9 (Cancelled).